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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,328	09/29/2000	James A. Belmont	99104CON	1547
<div>7590 Michelle B Lando Esq Cabot Corporation Law Department 157 Concord Road Billerica, MA 01821-7001</div>				
EXAMINER				
OH, TAYLOR V				
ART UNIT		PAPER NUMBER		
1625				
MAIL DATE		DELIVERY MODE		
02/14/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/672,328

**Applicant(s)**

BELMONT, JAMES A.

**Examiner**

Taylor Victor Oh

**Art Unit**

1625

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-10, 12-19, 21-25, 29, 30 and 32-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-10, 12-19, 21-25, 29-30 and 32-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/3508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/03/07 has been entered.

**The Status of Claims**

Claims 8-10,12-19,21-25,29,32-39 are pending.

Claims 8-10,12-19,21-25,29,32-39 are rejected.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-10,12-19,21-25,29,32-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 32-33, the phrases " at least one organic ionic group comprising at least " is recited. The expression "comprising" is vague and indefinite. This is because what

the meaning of the term "comprising" is that the one organic ionic group may contain many additional components. Furthermore, the term "comprising" leaves the claim open for the inclusion of unspecified ingredients even in major amounts. Ex parte Davis et al., 80 USPQ 448 (PTO Bd App. 1948). It is well settled that the terms comprising and containing do not exclude the presence of other ingredients than the one or ones recited. Ex parte Muench, 79 USPQ 92 (PTO Bd. App. 1948). An appropriate correction is required.

In claims 32-33, the phrases "alkyl group", "repeating monomer groups, multiple monomer groups" are recited. These expressions are vague and indefinite because each does not specify what "the range of carbon atoms for alkyl group" and kind of "repeating monomer groups, multiple monomer groups" are for the claimed compound. An appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

**1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:**

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**3. Claims 9-10, 12-13, 21-25, and 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al (US 5,698,016).**

Adams et al teaches a pigment such as carbon black having attached to at least one organic groups substituted with an ionic (see col. 5, lines 5-6) long with an amphiphilic ionic, such as an alkylbenzene sulfonate, an alkyl sulfoanate groups (see col. 2, lines 26-30); furthermore, for the organic group attached to the carbon black, the organic group can be at least one aromatic group substituted with one branched C1-C12 alkyl group in the followings (see col. 5, lines 55-67):

Art Unit: 1625

aromatic group may be further substituted or unsubstituted, for example, with alkyl groups. The  $C_1$ - $C_{12}$  alkyl group may be branched or unbranched and is preferably ethyl. More preferably, the organic group is a phenyl or a naphthyl group and the acidic group is a sulfonic acid group, a sulfinic acid group, a phosphonic acid group, or a carboxylic acid group. Examples include  $-\text{COOH}$ ,  $-\text{SO}_3\text{H}$  and  $-\text{PO}_3\text{H}_2$ ,  $-\text{SO}_2\text{NH}_2$ ,  $-\text{SO}_2\text{NHCOR}$ , and their salts, for example  $-\text{COONa}$ ,  $-\text{COOK}$ ,  $-\text{COO}^-\text{NR}_4^+$ ,  $-\text{SO}_3\text{Na}$ ,  $-\text{HPO}_3\text{Na}$ ,  $-\text{SO}_3^-\text{NR}_4^+$ , and  $\text{PO}_3\text{Na}_2$ , where R is an alkyl or phenyl group. Particularly preferred ionizable substitu-

In addition, carbon black product was treated with a polymeric cationic amphiphile containing amine (see col. 20 examples 18a-18n, lines 1-59).

Furthermore, an ink may include a vehicle which functions as a carrier during printing and / or additives to improve printability and drying (see col. 9, lines 15-30).

Moreover, the reference does indicate that the formation of an aqueous emulsion inkjet ink contains a suitable vehicle, binders and additives (see col. 9 lines , 54-59).

However, the instant invention differs from the prior art Belmont et al in that the claimed steric group is unspecified .

Concerning the lack in describing the steric group, Adams et al does describe that the organic group can be at least one aromatic group substituted with one branched  $C_1$ - $C_{12}$  alkyl group ( see col. 5, lines 58-59). From this, it follows that the bulky group such as the aromatic group can be used as either the organic group or the steric group depending on the choice of the skilled artisan in the art. Therefore, if the skilled artisan had desired to formulate the pigment product containing the steric group attached to the pigment, it would have been obvious to the skillful artisan in the art to be motivated to use the Belmont's et al substituted aromatic

compound as the organic group having the steric group in the Belmont's et al modified carbon black .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Taylor Victor Oh/  
Primary Examiner, Art Unit 1625  
2/12/08

Art Unit: 1625

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